

Formula I

wherein:

R is substituted or unsubstituted and is a
sugar moiety;

peptide;

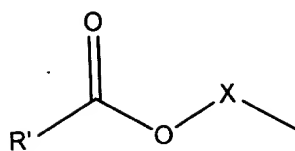
polyether;

straight chain alkyl having 1-11 carbon atoms, or branched chain alkyl having 1-30 carbon atoms, where the branched chain alkyl comprises a straight chain alkyl portion having 1-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms;

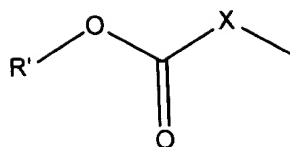
hydroxyalkyl where the alkyl portion is straight chain alkyl having 2-11 carbon atoms, or branched chain alkyl having 2-30 carbon atoms, where the branched chain alkyl comprises a straight chain alkyl portion having 2-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms;

aminoalkyl where the alkyl portion is straight chain alkyl having 2-11 carbon atoms, or branched chain alkyl having 2-30 carbon atoms, where the branched chain alkyl comprises a straight chain alkyl portion having 2-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms;

carboxyalkyl where the alkyl portion is straight chain alkyl having 2-11 carbon atoms, or branched chain alkyl having 2-30 carbon atoms, where the branched chain alkyl comprises a straight chain alkyl portion having 2-11 carbon atoms substituted with straight or branched lower alkyl groups having 1-6 carbon atoms; or



or

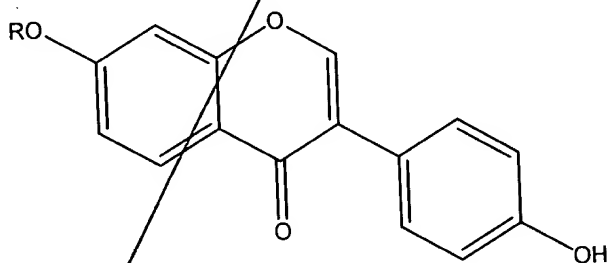


where X is straight chain alkylene having 2-11 carbon atoms, or branched chain alkylene having 2-30 carbon atoms, where the branched chain alkylene comprise a straight chain alkylene portion having 2-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms; and

R' is straight or branched alkyl having 1-6 carbon atoms,
in an amount effective to increase concentration of 5-hydroxyindole-3-acetaldehyde or 3,4-dihydroxyphenylacetaldehyde.

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3. (Amended) A method for therapeutically reducing alcohol consumption in a human in need thereof comprising administering to the human a compound of formula I



Formula I

wherein:

R is substituted or unsubstituted and is a sugar moiety;

peptide;

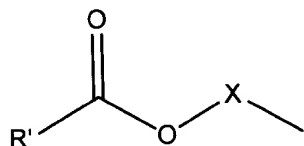
polyether;

straight chain alkyl having 1-11 carbon atoms, or branched chain alkyl having 1-30 carbon atoms, where the branched chain alkyl comprises a straight chain alkyl portion having 1-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms;

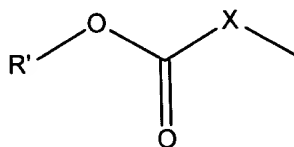
hydroxyalkyl where the alkyl portion is straight chain alkyl having 2-11 carbon atoms, or branched chain alkyl having 2-30 carbon atoms, where the branched chain alkyl comprises a straight chain alkyl portion having 2-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms;

aminoalkyl where the alkyl portion is straight chain alkyl having 2-11 carbon atoms, or branched chain alkyl having 2-30 carbon atoms, where the branched chain alkyl comprises a straight chain alkyl portion having 2-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms;

carboxyalkyl where the alkyl portion is straight chain alkyl having 2-11 carbon atoms, or branched chain alkyl having 2-30 carbon atoms, where the branched chain alkyl comprises a straight chain alkyl portion having 2-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms; or



or



where X is straight chain alkylene having 2-11 carbon atoms, or branched chain alkylene having 2-30 carbon atoms, where the branched chain alkylene comprise a straight chain alkylene portion having 2-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms; and

R' is straight or branched alkyl having 1-6 carbon atoms,
in an amount effective to increase concentration of an aldehyde formed during catabolism of a

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neurotransmitter.

I. Status of the Application

Claims 1-6 are pending in the application. Claims 3-6 stand rejected under 35 U.S.C. § 112, second paragraph. Claims 1-6 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Keung et al. Claims 3-6 are rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-10 of U.S. Patent No. 5,886,028. Claims 3-6 are rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-6 of U.S. Patent No. 5,624,910. Claims 1-2 are rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-6 of U.S. Patent No. 5,624,910 or claims 1-10 of U.S. Patent No. 5,886,028 in view of Keung et al.

Applicants have amended claim 1 to correct inadvertent typographical errors and claim 3 to revise the preamble of the claim to include the language suggested by the Examiner. Applicants respectfully suggest that this amendment to the preamble does not limit the body of applicants' claimed subject matter, as a preamble is not considered a limitation of the claim. The amendments presented herein add no new matter. Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "Version of Amendments with Markings to Show Changes Made."

II. Rejection of claims 3-6 under 35 U.S.C. § 112, Second Paragraph

At page 2, paragraph 1 of the Office Action, claims 3-6 stand rejected under 35 U.S.C. § 112, second paragraph. Applicants respectfully traverse the rejection as applicants believe that claims 3-6

would be clearly understood by one of skill in the art, However, in response, the applicants have made a nonlimiting amendment to the preamble as suggested by the Examiner in order to facilitate allowance of the application.

III. Claims 1-6 are Patentable Over Keung et al.

At page 3, paragraph 4 of the Office Action, claims 1-6 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Keung et al. The Examiner states that Keung et al. teaches methods of inhibiting ALDH-2 in human livers as well as methods of reducing the intake of ethanol by hamsters by administering effective amounts of daidzin or daidzin analogs. The Examiner concludes that one of skill in the art would have been motivated to modify the reference to administer daidzin and daidzin analogs to humans because of the successful reduction of ethanol intake by hamsters as a result of ALDH-2 inhibition. Applicants respectfully traverse this rejection.

Keung et al. does not disclose the claimed methods which include the use of aldehydes such as 5-hydroxyindole-3-acetaldehyde and 3,4-dihydroxyphenyl-3-acetaldehyde. The Examiner has not addresses these limitations of the claims. No reference of record has been identified by the Examiner to cure the deficiencies of Keung et al. Accordingly, Applicants respectfully request the rejection of claims 1-6 as being obvious under 35 U.S.C. § 103(a) in view of Keung et al. be reconsidered and withdrawn.

IV. Rejection of Claims 3-6 Under Obviousness-Type Double Patenting

At page 4, paragraph 6 of the Office Action, claims 3-6 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-10 of U.S. Patent No. 5,886,028 ("the '028 patent"). The Examiner states that "although the conflicting claims

are not identical, they are not patentably distinct from each other because both the instant application and USPN '028 claim a method for therapeutically treating alcohol consumption in humans by administering compounds represented by formula I." At page 4, paragraph 7 of the Office Action, claims 3-6 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6 of U.S. Patent No. 5,624,910 ("the '910 patent"). The Examiner states that "although the conflicting claims are not identical, they are not patentably distinct from each other because both the instant application and USPN '910 claim a method for therapeutically treating alcohol consumption in a human by administering daidzin."

Claims 1-10 of the '028 patent and claims 1-6 of the '910 patent do not disclose the claimed methods which include the use of aldehydes such as 5-hydroxyindole-3-acetaldehyde and 3,4-dihydroxyphenyl-3-acetaldehyde. The Examiner has not addresses these limitations of the claims. No reference of record has been identified by the Examiner to cure the deficiencies of the cited claims. The pending claims are not obvious in view of the issued claims cited by the Examiner. Accordingly, Applicants respectfully request that these obviousness-type double patenting rejections of claims 3-6 be reconsidered and withdrawn.

At page 5, paragraph 8 of the Office Action, the Examiner further asserts that claims 1-2 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6 of the '910 patent or claims 1-10 of the '028 patent in view of Keung et al. The Examiner states that although "USPN '028 and '910 do not claim a method for inhibiting ALDH-2 in a human", it would have been obvious to inhibit ALDH-2 as claimed in claims 1-2 based upon these references. Applicants respectfully traverse this rejection.

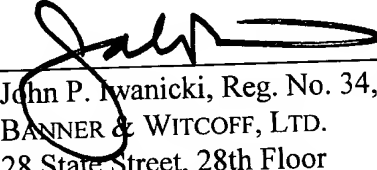
Claims 1-10 of the '028 patent and claims 1-6 of the '910 patent do not disclose the claimed methods which include the use of aldehydes such as 5-hydroxyindole-3-acetaldehyde and 3,4-

dihydroxylphenyl-3-acetaldehyde. The Examiner has not addresses these limitations of the claims. No reference of record has been identified by the Examiner to cure the deficiencies of the cited claims. The pending claims are not obvious in view of the issued claims cited by the Examiner. Accordingly, Applicants respectfully request that these obviousness-type double patenting rejections of claims 3-6 be reconsidered and withdrawn.

Reconsideration and allowance of all the pending claims is respectfully requested. If a telephone conversation with Applicants' attorney would expedite prosecution of the above-identified application, the Examiner is urged to call the undersigned at the number below.

Respectfully submitted,

Dated: October 30, 200



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